

**SALLISAW MUNICIPAL AUTHORITY
SPECIAL MEETING**

July 21, 2021

**Time: Immediately Following the
Meeting of the Board of City Commissioners**

**City Hall
3rd Floor Conference Room
115 East Choctaw
Sallisaw, OK**

A G E N D A

- 1. Meeting called to order**
- 2. Declaration of a quorum**
- 3. Discuss and Consider Approval of Purchase Order 86565, Issued to WESCO Distribution for the Purchase of Four (4) ABB Gridshield Reclosure Units for the North Substation Project, in Amount of \$86,360.00**
- 4. Administrative Reports**
- 5. Adjourn**

Posted: JULY 19, 2021

Time: 9:30 A.M.

Dianna Davis

AGENDA ITEM COMMENTARY

Meeting Date: July 21, 2021
Board: Sallisaw Municipal Authority
Subject: ABB Substation Equipment

ITEM TITLE: Discuss and Consider Approval of Purchase Order 86565, Issued to WESCO Distribution for the Purchase of Four (4) ABB Gridshield Reclosure Units for the North Substation Project, in Amount of \$86,360.00

INITIATOR: General Manager
Electric Superintendent
Olsson Engineering

STAFF INFORMATION SOURCE: WESCO Distribution

BACKGROUND: Approval of this purchase will allow staff to order four (4) ABB Gridshield Reclosure units for installation at the new North Substation. By utilizing ABB, we are keeping the equipment at our substations standardized, thus making the replacement of parts and future upgrades much easier.

Our engineer, Olsson Engineering, has reviewed the quotes and specifications and has approved the items for purchase.

EXHIBITS: 1. WESCO International, Inc. Quote #789524
2. QT-21-01957662 Wesco City of Sallisaw Recloser

KEY ISSUES: Delivery is anticipated to be up to 17 weeks.

FUNDING SOURCE: Series 2020 Bond Funds via the Sallisaw Municipal Authority and EDA Grant Funds
GL # 109-601-57702

RECOMMENDATION: Staff recommends approval of Purchase Order 86565, in the amount of \$86,360.00.



13047 E 59th ST
(918-940-4330)
TULSA

OK 74134

Quotation

UNLESS THERE ARE DIFFERENT OR ADDITIONAL TERMS AND CONDITIONS CONTAINED IN A MASTER AGREEMENT THAT MODIFY WESCO'S STANDARD TERMS, BUYER AGREES THAT THIS QUOTE AND ANY RESULTING PURCHASE ORDER WILL BE GOVERNED BY WESCO'S TERMS AND CONDITIONS AVAILABLE AT [HTTP://WWW.WESCO.COM/TERMS_AND_CONDITIONS_OF_SALE.PDF](http://www.wesco.com/terms_and_conditions_of_sale.pdf), WHICH TERMS ARE INCORPORATED HEREIN BY REFERENCE AND MADE PART HEREOF. PLEASE CONTACT THE SELLER IDENTIFIED ON THIS QUOTE IF YOU REQUIRE A PRINTED COPY.

To: CITY OF SALLISAW
213 W QUESENBURY

SALLISAW OK 74955

Date: 07/13/21
Branch: 7697
Project Number: RECLOSER QUOTE
Project Name
Quoted To:
Date of Your Inquiry: 07/12/21
When ordering please refer
to Quotation Number: 789524

Item	Quantity	Catalog Number and Description	Unit Price	U/M	Total Price	Rate of Cash Discount	Shipping Time (Weeks)	Customer Delivery Date
20	4	ABB*A1162AA2ASS3C1NN**ANSI/IEC TH	21590.000	E	86360.00	0.00		07/13/21
SUB-TOTAL					86360.00			
TOTAL					86360.00			

F.O.B. Point of Shipment. The prices stated in this offer shall, unless renewed, automatically expire fifteen days (15) from the date of this offer. Prices quoted are subject to adjustment should Duty and Tariff rates change from time of bid/quotation to time of order. WESCO reserves the right to adjust its pricing for Goods affected directly or indirectly by changing duties/tariffs/trade agreements and significant currency fluctuations.

Per:

Commercial and Technical Tender

ABB Negotiation Number: QT-21-01957662.A

Equipment: GridShield® three-phase vacuum recloser

7/13/2021

This proposal offers the ABB GridShield® recloser. With over 15 years of proven field performance, ABB GridShield® reclosers are a demonstrated technology. GridShield® reclosers provide unparalleled reliability while minimizing maintenance costs and downtime. ABB's GridShield® delivers quantifiable improvement and value in the following areas:

Increased reliability

- Unparalleled performance even in heavily polluted areas as the Hydrophobic Cycloaliphatic Epoxy (HCEP) material of the poles provides the best insulation for outdoor performance, shedding water and reducing the probability of flashover
- Increased life expectancy with the stainless-steel enclosure as erosion and wear are reduced
- Highly reliable ABB Vacuum Interrupters with MTBF of over 200,000 years, 30 years of experience and over 5 million interrupters in service.
- Highly reliable Embedded Poles with MTBF of over 27,000 years. Every pole is tested for partial discharge and comes with void-free construction.
- The high voltage tank and the individual poles offer ingress protection of IP65 which help in keeping water and dust from getting into the unit.

High accuracy current and voltage sensing

- Embedded and Integrated Dual voltage sensing options available
- Current sensing accuracy of $\pm 0.5\%$ on all units
- Voltage sensing accuracy between $\pm 1\%$ to $\pm 3\%$ based on the unit configuration.
- Ideal for all distribution automation applications such as tie-points, DER connections, synchronism checks and FLISR Schemes

Decreased maintenance costs and downtime

- Easier, faster and safer maintenance as all the electronics are in the low voltage unit, eliminating the need for a bucket truck to isolate potentials to service electronics
- Poles can be replaced quickly onsite, no need to return the high voltage unit to the factory for repair

Easy integration

- Multiple standard frames available for selection. Customization of frames can also be done to match the conductor configuration on the utility pole
- Site ready units are available, minimizing any work to prepare the unit for installation
- ABB controller with Relion® relays has a fully customizable faceplate allowing ease of operation and reduced personnel training
- High voltage unit compatible with existing SEL controller and options available for Beckwith M-7679 and RER-615 relays.
- ABB controllers offer latest communication protocols including DNP and IEC 61850, with GOOSE messaging without the need for protocol converters, providing seamless integration with SCADA/DMS and interoperability for smart grid applications

ABB is ready to support this proposal with technical application experts, spare parts, training, and support



services to ensure the ease of integration and the reduction of the total cost of ownership. Thank you in advance for considering this proposal. Please do not hesitate to contact me with any questions.

Best Regards,

Imad Taha

ABB Inc.

3700 W Sam Houston Pkwy South

Houston, Texas, 77042 United States

Phone: (832) 210-4159

Email: imad.taha@us.abb.com



Commercial and Technical Tender

ABB Inc.

655 Century Point
Lake Mary, FL 32746
Tel: 407-732-2000

Date:	7/13/2021
Tender ID:	QT-21-01957662.A
Account mgr.:	
Valid through:	8/12/2021
Reference #:	OPP-21-4853270

Prepared for:

Wesco - Diversified - Broken Arrow
PO Box 816167
Dallas
75381

Prepared by:

Imad Taha
ABB Inc.
3700 W Sam Houston Pkwy South
Houston, Texas, 77042 United States
Phone: (832) 210-4159
Email: imad.taha@us.abb.com

Pricing

Standard lead time*

- 17 weeks with approval drawings
- 11 weeks without approval drawings and an existing bill of material

*See full details in the Delivery section in the Terms and Conditions

Standard Line Item:

Item	Qty	Image	Product Type
1	4		ANSI/IEC Three Phase Magnetic GridShield Recloser ABB Product ID: A1162AA2ASS3C1NN Key ratings ANSI Outdoor Gridshield Recloser, Recloser Type: A - Gridshield Single Tank, Customer Rating: 15 kV, 110 kV BIL, 800 Amp, 12.5 kA, Max Rating: 1 - 15kV - 1000A - 125kV BIL - 12.5kA IR (ANSI)

Technical Data Sheet

Item 1 (Standard Line Item)

ABB Product ID: A1162AA2ASS3C1NN

Recloser Type	A - Gridshield Single Tank OVR-3 Recloser
Rated Voltage	1 - 15kV - 1000A - 125kV BIL - 12.5kA IR (ANSI)
Customer Rating	15 kV, 110 kV BIL, 800 Amp, 12.5 kA
Voltage Sensing	1 - Single (3VS)
HV Cabinet Assembly	24-pin, Gridshield, 15 kV, 3VS
Current Sensing	6 - Embedded Current Sensing - 600:1
Mounting Frame	2A - Substation
Assembly	A - Assembled
Bushing Terminal	2 - NEMA 2 Hole Pad
Heater Voltage	A - 120 VAC
Control Cable Type	3 - 24 pin to 24 pin
Control Cable Length	C - 30 ft
Control Power Supply	1 - 120 VAC
Control Power Cable	N - None
Legacy Material	Yes OVR-3 Recloser Duplicate of R1181HCSSSSS21A except for mounting frame
Future	N - None

RECLOSER DYNAMIC ACCESSORIES

Dynamic Accessories (Multi)	Shipping – Open pallet
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Recloser Cabinet

Controller Type	S - SEL651R 0651R23DXBA8AD1122XXXX
LV Cabinet Size	S - SEL Standard

Sensor Type

Sensor Cable Length	None
Sensor Type	None

Relcloser PT

PT Type	None
PT Quantity	None
Internal Ref (PT)	None

Recloser Surge Arrester

Surge Arresters	None
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**Accessories**

Shipping – Open pallet

ABB Internal Order Entry Information

CID Code: 9AAF401965

Source Location Code: 9AAE315900 Manufacturing: 3407, Mexico - San Luis Potosi



Clarifications

ABB provides quotation based on the specifications provided by Wesco - Diversified - Broken Arrow.

Revision History

Rev #	Date	Description of Change	Handled By

Example ABB Recloser Cost Savings

HCEP material cleaning cost savings

		Traditional reclosers ¹	ABB reclosers
Estimated service life (years)²		20	20
Number of years between incidents		3	Not applicable
Cost per incident		\$847.70	Not applicable
Cost per incident	Labor cost per hour	\$85	Not applicable
	Setup time (hrs)	0.5	Not applicable
	# of workers required for setup	2	Not applicable
	Time to complete maintenance (hrs)	1	Not applicable
	# of workers required for maintenance	1	Not applicable
	Pressure washer costs	\$650.00	Not applicable
	Bucket truck cost (\$/mile)	\$2.77	Not applicable
	Average distance traveled per cleaning (miles)	10	Not applicable
Lifetime cost:		\$5,086.20	\$0.00
Lifetime cleaning cost savings: \$5,086.20			

Pole field replacement cost savings

	Traditional reclosers	ABB reclosers
Average lifetime (years)	20	20
Number of years between incidents	10	10

¹ The values used to calculate cost savings with traditional reclosers are per ABB's experience and customer feedback.

² The Estimated Service Life refers to the normally observed useful service life for a product. The estimated service life will vary based on the environment, maintenance and usage of the recloser; ABB offers a standard 3- year limited warranty for its recloser product line.



Cost per incident		\$8,340.00	\$2,680.00
Cost per incident	Labor cost per hour	\$85	\$85
	Setup time (hrs)	2	4
	# of workers required for setup	2	2
	Time to complete maintenance (hrs)	8,000	\$2,000
Lifetime cost:		\$8,340.00	\$2,680.00

Lifetime pole field replacement cost savings: \$5,660.00

Site-ready unit cost savings

	Traditional reclosers	ABB reclosers
Labor cost per hour	\$85	\$85
Setup time (hrs)	8	2
# of workers required for setup	2	2
Time to complete installation (hrs)	12	5
# of workers required for installation	2	2
Lifetime cost:	\$3,400.00	\$1,190.00

Lifetime site-ready unit cost savings: \$2,210.00



Optional Services

ABB can support our customers with hands-on factory authorized training for all their new installations. ABB offers a hands-on training class for up to 10 technicians on-site to train them on the proper operation and safety requirements of their new gear. The duration and content of the class can be customized based on the experience and background of your technicians. The classes are led by a highly skilled factory trained field service technician. Additional training courses are available based on customer need, such as preventive maintenance, complete refurbishment, relay coordination, etc. ABB will design the program around customer requirements.

ABB offers installation and commissioning of all our products at competitive rates, utilizing our factory trained service team. We work with our customers to determine the level of support and installation schedule to fit their specific needs. When you use ABB's service team to support your installation needs, we will waive the fee for the one day hands-on training mentioned above.

ABB also offers a preventive maintenance program at factory recommended intervals to increase the reliability and service life of your new gear. Choosing an ABB preventive maintenance program may allow ABB to extend the warranty on your equipment.



General Terms and Conditions

Price

Prices are firm for shipment quoted, and do not include federal, state, or local taxes of any kind.

Payment

Payment terms are Due in 60 days invoice date.

ABB has a minimum domestic order value requirement of \$200USD.

ABB has a minimum international order value requirement of \$400USD.

All returns are subject to a restocking fee of no more than 30% of the amount of the order.

ABB reserves the right to review and revise quotes based on cost of material fluctuation.

Cancellation Charges

Cancellation of the contract will be subject to penalties depending on the time the cancellation occurs.

ABB's standard cancellation charges are 10% after receipt of order, 20% after drawings issued to customer for approval or if order has been engineered, 45% after release to order major material, 75% after receipt of major material, and 100% after start of fabrication.

Change Notices

Changes after order entry related to engineering, drawings, or parts could be subject to additional charges and may impact shipment schedule.

Warranty

The GridShield® unit includes a 3-year warranty from the date of shipment.

ABB relays include a 10-year warranty from the date of shipment.

All Non-ABB relays carry their respective manufacturer's warranties.

Delivery Terms

Proposed delivery terms will be Carriage Paid To.

Extra Information: CPT Destination

Quoted lead times are based on current production levels. Actual lead times are dependent on available production space at time of order entry and/or release to manufacturing.

Please add 3 weeks for drawing approvals, if required. To ensure the quoted lead-time please return approval drawings to ABB within 2 weeks of receipt. ABB will make every effort to maintain a short delivery schedule.

Shipment Schedule

Contract drawings, information submittals, manufacturing, and shipment schedules will follow the outline below and is contingent on customer approval in the time frame indicated:

- I. Orders with Drawing Approval
 - Approval Drawings – 3 weeks after receipt of ABB approved order
 - Customer drawing approval time – 2 weeks to keep order timeline on schedule
 - Product ready for shipment – 12 weeks after return of all approval drawings with customer release for manufacture
 - Total lead time – 17 weeks (with 2 weeks customer approval)

- II. Orders with existing bill of material, no bill of material changes and no approval drawings (duplicate orders)
 - Total lead time – 11 weeks ** after receipt of ABB approved order

All customer provided data and requirement must be finalized at the time of purchase order placement. Revision to contract requirements may result in schedule changes and delays. All lead-times are subject to change based on prior sales and loaded factory capacity, please contact factory for actual lead-times at time of order placement.

Use reclosers together with our Electronic Sectionalizer - Autolink – for a smarter grid!

- If a permanent fault occurs, Autolink will isolate the faulted section of the network, avoiding recloser lockout and interruption to un-faulted sections
- If the fault is temporary, Autolink allows the upstream recloser to clear the fault
- Wireless option allows pairing multiple Autolinks for 3 phase operation
- Allows pickup values to be set optimally (no dip switches)
- Mounts on standard ICX cutout
- Available in 15kV, 27kV, 38kV



Terms and Conditions

Form 50-490 General Terms and Conditions of Sale



1. **General.** The terms and conditions contained herein, together with any additional or different terms contained in ABB's Proposal, if any, submitted to Purchaser (which Proposal shall control over any conflicting terms), constitute the entire agreement (the "Agreement") between the parties with respect to the order and supersede all prior communications and agreements regarding the order. Acceptance by ABB of the order, or Purchaser's acceptance of ABB's Proposal, is expressly limited to and conditioned upon Purchaser's acceptance of these terms and conditions, payment for or acceptance of any performance by ABB being acceptance. These terms and conditions may not be changed or superseded by any different or additional terms and conditions proposed by Purchaser to which terms ABB hereby objects. Unless the context otherwise requires, the term "Equipment" as used herein means all of the equipment, parts, accessories sold, and all software and software documentation, if any, licensed to Purchaser by ABB ("Software") under the order. Unless the context otherwise requires, the term "Services" as used herein means all labor, supervisory, technical and engineering, installation, repair, consulting or other services provided by ABB under the order. As used herein, the term "Purchaser" shall include the initial end use of the Equipment and/or services; provided, however, that Paragraph 13(a) shall apply exclusively to the initial end user.
2. **Prices.**
 - (a) Unless otherwise specified in writing, all Proposals expire thirty (30) days from the date thereof.
 - (b) Unless otherwise stated herein, Services prices are based on normal business hours (8 a.m. to 5 p.m. Monday through Friday). Overtime and Saturday hours will be billed at one and one-half (1 1/2) times the hourly rate; and Sunday hours will be billed at two (2) times the hourly rate; holiday hours will be billed at three (3) times the hourly rate. If a Services rate sheet is attached hereto, the applicable Services rates shall be those set forth in the rate sheet. Rates are subject to change without notice.
 - (c) The price does not include any federal, state or local property, license, privilege, sales, use, excise, gross receipts, or other like taxes which may now or hereafter be applicable. Purchaser agrees to pay or reimburse any such taxes which ABB or its suppliers are required to pay or collect. If Purchaser is exempt from the payment of any tax or holds a direct payment permit, Purchaser shall, upon order placement, provide ABB a copy, acceptable to the relevant governmental authorities of any such certificate or permit.
 - (d) The price includes customs duties and other importation or exportation fees, if any, at the rates in effect on the date of ABB's Proposal. Any change after that date in such duties, fees, or rates, shall increase the price by ABB's additional cost.
3. **Payment.**
 - (a) Unless specified to the contrary in writing by ABB, payment terms are net cash, payable without offset, in United States Dollars, 30 days from date of invoice by wire transfer to the account designated by ABB in the Proposal.
 - (b) If in the judgment of ABB the financial condition of Purchaser at any time prior to delivery does not justify the terms of payment specified, ABB may require payment in advance, payment security satisfactory to ABB, or may terminate the order, whereupon ABB shall be entitled to receive reasonable cancellation charges. If delivery is delayed by Purchaser, payment shall be due on the date ABB is prepared to make delivery. Delays in delivery or nonconformities in any installments delivered shall not relieve Purchaser of its obligation to accept and pay for remaining installments.
 - (c) Purchaser shall pay, in addition to the overdue payment, a late charge equal to the lesser of 1 1/2% per month or any part thereof or the highest applicable rate allowed by law on all such overdue amounts plus ABB's attorneys' fees and court costs incurred in connection with collection.
4. **Changes.**
 - (a) Any changes requested by Purchaser affecting the ordered scope of work must be accepted by ABB and resulting adjustments to affected provisions, including price, schedule, and guarantees mutually agreed in writing prior to implementation of the change.
 - (b) ABB may, at its expense, make such changes in the Equipment or Services as it deems necessary, in its sole discretion, to conform the Equipment or Services to the applicable specifications. If Purchaser objects to any such changes, ABB shall be relieved of its obligation to conform to the applicable specifications to the extent that conformance may be affected by such objection.
5. **Delivery.**
 - (a) All Equipment manufactured, assembled or warehoused in the continental United States is delivered F.O.B. point of shipment. Equipment shipped from outside the continental United States is delivered F.O.B. United States port of entry. Purchaser shall be responsible for any and all demurrage or detention charges.
 - (b) If the scheduled delivery of Equipment is delayed by Purchaser or by Force Majeure, ABB may move the Equipment to storage for the account of and at the risk of Purchaser whereupon it shall be deemed to be delivered.
 - (c) Shipping and delivery dates are contingent upon Purchaser's timely approvals and delivery by Purchaser of any documentation required for ABB's performance hereunder.



(d) Claims for shortages or other errors in delivery must be made in writing to ABB within ten days of delivery. Equipment may not be returned except with the prior written consent of and subject to terms specified by ABB. Claims for damage after delivery shall be made directly by Purchaser with the common carrier

6. **Title & Risk of Loss.** Except with respect to Software (for which title shall not pass, use being licensed) title to Equipment shall remain in ABB until fully paid for. Notwithstanding any agreement with respect to delivery terms or payment of transportation charges, risk of loss or damage shall pass to Purchaser upon delivery.

7. **Inspection, Testing and Acceptance.**

(a) Any inspection by Purchaser of Equipment on ABB's premises shall be scheduled in advance to be performed during normal working hours.

(b) If the order provides for factory acceptance testing, ABB shall notify Purchaser when ABB will conduct such testing prior to shipment. Unless Purchaser states specific objections in writing within ten (10) days after completion of factory acceptance testing, completion of the acceptance test constitutes Purchaser's factory acceptance of the Equipment and its authorization for shipment.

(c) If the order provides for site acceptance testing, testing will be performed by ABB personnel to verify that the Equipment has arrived at site complete, without physical damage, and in good operating condition. Completion of site acceptance testing constitutes full and final acceptance of the Equipment. If, through no fault of ABB, acceptance testing is not completed within thirty (30) days after arrival of the Equipment at the site, the site acceptance test shall be deemed completed and the Equipment shall be deemed accepted.

8. **Warranties and Remedies.**

(a) Equipment and Services Warranty. ABB warrants that Equipment (excluding Software, which is warranted as specified in paragraph (d) below) shall be delivered free of defects in material and workmanship and that Services shall be free of defects in workmanship. The Warranty Remedy Period for Equipment (excluding Software, Spare Parts and Refurbished or Repaired Parts) shall end twelve (12) months after installation or eighteen (18) months after date of shipment, whichever first occurs. The Warranty Remedy Period for new spare parts shall end twelve (12) months after date of shipment. The Warranty Remedy Period for refurbished or repaired parts shall end ninety (90) days after date of shipment. The Warranty Remedy Period for Services shall end ninety (90) days after the date of completion of Services.

(b) Equipment and Services Remedy. If a nonconformity to the foregoing warranty is discovered in the Equipment or Services during the applicable Warranty Remedy Period, as specified above, under normal and proper use and provided the Equipment has been properly stored, installed, operated and maintained and written notice of such nonconformity is provided to ABB promptly after such discovery and within the applicable Warranty Remedy Period, ABB shall, at its option, either (i) repair or replace the nonconforming portion of the Equipment or re-perform the nonconforming Services or (ii) refund the portion of the price applicable to the nonconforming portion of Equipment or Services. If any portion of the Equipment or Services so repaired, replaced or re-performed fails to conform to the foregoing warranty, and written notice of such nonconformity is provided to ABB promptly after discovery and within the original Warranty Remedy Period applicable to such Equipment or Services or 30 days from completion of such repair, replacement or re-performance, whichever is later, ABB will repair or replace such nonconforming Equipment or re-perform the nonconforming Services. The original Warranty Remedy Period shall not otherwise be extended.

(c) Exceptions. ABB shall not be responsible for providing working access to the nonconforming Equipment, including disassembly and re-assembly of non-ABB supplied equipment, or for providing transportation to or from any repair facility, all of which shall be at Purchaser's risk and expense. ABB shall have no obligation hereunder with respect to any Equipment which (i) has been improperly repaired or altered; (ii) has been subjected to misuse, negligence or accident; (iii) has been used in a manner contrary to ABB's instructions; (iv) is comprised of materials provided by or a design specified by Purchaser; or (v) has failed as a result of ordinary wear and tear. Equipment supplied by ABB but manufactured by others is warranted only to the extent of the manufacturer's warranty, and only the remedies, if any, provided by the manufacturer will be allowed.

(d) Software Warranty and Remedies. ABB warrants that, except as specified below, the Software will, when properly installed, execute in accordance with ABB's published specification. If a nonconformity to the foregoing warranty is discovered during the period ending one (1) year after the date of shipment and written notice of such nonconformity is provided to ABB promptly after such discovery and within that period, including a description of the nonconformity and complete information about the manner of its discovery, ABB shall correct the nonconformity by, at its option, either (i) modifying or making available to the Purchaser instructions for modifying the Software; or (ii) making available at ABB's facility necessary corrected or replacement programs. ABB shall have no obligation with respect to any nonconformities resulting from (i) unauthorized modification of the Software or (ii) Purchaser-supplied software or interfacing. ABB does not warrant that the functions contained in the software will operate in combinations which may be selected for use by the Purchaser, or that the software products are free from errors in the nature of what is commonly categorized by the computer industry as "bugs".

(e) THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY AND PERFORMANCE, WHETHER WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USAGE OF TRADE ARE HEREBY DISCLAIMED. THE REMEDIES STATED HEREIN CONSTITUTE PURCHASER'S EXCLUSIVE REMEDIES AND ABB'S ENTIRE LIABILITY FOR ANY BREACH OF WARRANTY.

9. Patent Indemnity.

(a) ABB shall defend at its own expense any action brought against Purchaser alleging that the Equipment or the use of the Equipment to practice any process for which such Equipment is specified by ABB (a "Process") directly infringes any claim of a patent of the United States of America and to pay all damages and costs finally awarded in any such action, provided that Purchaser has given ABB prompt written notice of such action, all necessary assistance in the defense thereof and the right to control all aspects of the defense thereof including the right to settle or otherwise terminate such action in behalf of Purchaser.

(b) ABB shall have no obligation hereunder and this provision shall not apply to: (i) any other equipment or processes, including Equipment or Processes which have been modified or combined with other equipment or process not supplied by ABB; (ii) any Equipment or Process supplied according to a design, other than an ABB design, required by Purchaser; (iii) any products manufactured by the Equipment or Process; (iv) any patent issued after the date hereof; or (v) any action settled or otherwise terminated without the prior written consent of ABB.

(c) If, in any such action, the Equipment is held to constitute an infringement, or the practice of any Process using the Equipment is finally enjoined, ABB shall, at its option and its own expense, procure for Purchaser the right to continue using said Equipment; or modify or replace it with non-infringing equipment or, with Purchaser's assistance, modify the Process so that it becomes non-infringing; or remove it and refund the portion of the price allocable to the infringing Equipment. THE FOREGOING PARAGRAPHS STATE THE ENTIRE LIABILITY OF ABB AND EQUIPMENT MANUFACTURER FOR ANY PATENT INFRINGEMENT.

(d) To the extent that said Equipment or any part thereof is modified by Purchaser, or combined by Purchaser with equipment or processes not furnished hereunder (except to the extent that ABB is a contributory infringer) or said Equipment or any part thereof is used by Purchaser to perform a process not furnished hereunder by ABB or to produce an article, and by reason of said modification, combination, performance or production, an action is brought against ABB, Purchaser shall defend and indemnify ABB in the same manner and to the same extent that ABB would be obligated to indemnify Purchaser under this "Patent Indemnity" provision.

10. Limitation of Liability.

(a) In no event shall ABB, its suppliers or subcontractors be liable for special, indirect, incidental or consequential damages, whether in contract, warranty, tort, negligence, strict liability or otherwise, including, but not limited to, loss of profits or revenue, loss of use of the Equipment or any associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, delays, and claims of customers of the Purchaser or other third parties for any damages. ABB's liability for any claim whether in contract, warranty, tort, negligence, strict liability, or otherwise for any loss or damage arising out of, connected with, or resulting from this Agreement or the performance or breach thereof, or from the design, manufacture, sale, delivery, resale, repair, replacement, installation, technical direction of installation, inspection, operation or use of any equipment covered by or furnished under this Agreement, or from any services rendered in connection therewith, shall in no case (except as provided in the section entitled "Patent Indemnity") exceed one-half (1/2) of the purchase price allocable to the Equipment or part thereof or Services which gives rise to the claim.

(b) All causes of action against ABB arising out of or relating to this Agreement or the performance or breach hereof shall expire unless brought within one year of the time of accrual thereof.

(c) In no event, regardless of cause, shall ABB be liable for penalties or penalty clauses of any description or for indemnification of Purchaser or others for costs, damages, or expenses arising out of or related to the Equipment and/Services.

11. Laws and Regulations. ABB does not assume any responsibility for compliance with federal, state or local laws and regulations, except as expressly set forth herein, and compliance with any laws and regulations relating to the operation or use of the Equipment or Software is the sole responsibility of the Purchaser. All laws and regulations referenced herein shall be those in effect as of the Proposal date. In the event of any subsequent revisions or changes thereto, ABB assumes no responsibility for compliance therewith. If Purchaser desires a modification as a result of any such change or revision, it shall be treated as a change per Article 4. Nothing contained herein shall be construed as imposing responsibility or liability upon ABB for obtaining any permits, licenses or approvals from any agency required in connection with the supply, erection or operation of the Equipment. This Agreement shall be governed by the laws of the State of New York, but excluding the provisions of the United Nations Convention on Contracts for the International Sale of Goods and excluding New York law with respect to conflicts of law. Purchaser agrees that all causes of action against ABB under this Agreement shall be brought in the State Courts of the State of New York, or the U.S. District Court for the Southern District of New York. If any provision hereof, partly or completely,

shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

12. **OSHA.** ABB warrants that the Equipment will comply with the relevant standards of the Occupational Safety and Health Act of 1970 ("OSHA") and the regulations promulgated thereunder as of the date of the Proposal. Upon prompt written notice from the Purchaser of a breach of this warranty, ABB will replace the affected part or modify it so that it conforms to such standard or regulation. ABB's obligation shall be limited to such replacement or modification. In no event shall ABB be responsible for liability arising out of the violation of any OSHA standards relating to or caused by Purchaser's design, location, operation, or maintenance of the Equipment, its use in association with other equipment of Purchaser, or the alteration of the Equipment by any party other than ABB.
13. **Software License.**
 - (a) ABB owns all rights in or has the right to sublicense all of the Software, if any, to be delivered to Purchaser under this Agreement. As part of the sale made hereunder Purchaser hereby obtains a limited license to use the Software, subject to the following: (i) The Software may be used only in conjunction with equipment specified by ABB; (ii) The Software shall be kept strictly confidential; (iii) The Software shall not be copied, reverse engineered, or modified; (iv) The Purchaser's right to use the Software shall terminate immediately when the specified equipment is no longer used by the Purchaser or when otherwise terminated, e.g. for breach, hereunder; and (v) the rights to use the Software are non-exclusive and non-transferable, except with ABB's prior written consent.
 - (b) Nothing in this Agreement shall be deemed to convey to Purchaser any title to or ownership in the Software or the intellectual property contained therein in whole or in part, nor to designate the Software a "work made for hire" under the Copyright Act, nor to confer upon any person who is not a named party to this Agreement any right or remedy under or by reason of this Agreement. In the event of termination of this License, Purchaser shall immediately cease using the Software and, without retaining any copies, notes or excerpts thereof, return to ABB the Software and all copies thereof and shall remove all machine readable Software from all of Purchaser's storage media.
14. **Inventions and Information.** Unless otherwise agreed in writing by ABB and Purchaser, all right, title and interest in any inventions, developments, improvements or modifications of or for Equipment and Services shall remain with ABB. Any design, manufacturing drawings or other information submitted to the Purchaser remains the exclusive property of ABB. Purchaser shall not, without ABB's prior written consent, copy or disclose such information to a third party. Such information shall be used solely for the operation or maintenance of the Equipment and not for any other purpose, including the duplication thereof in whole or in part.
15. **Force Majeure.** ABB shall neither be liable for loss, damage, detention or delay nor be deemed to be in default for failure to perform when prevented from doing so by causes beyond its reasonable control including but not limited to acts of war (declared or undeclared), Acts of God, fire, strike, labor difficulties, acts or omissions of any governmental authority or of Purchaser, compliance with government regulations, insurrection or riot, embargo, delays or shortages in transportation or inability to obtain necessary labor, materials, or manufacturing facilities from usual sources or from defects or delays in the performance of its suppliers or subcontractors due to any of the foregoing enumerated causes. In the event of delay due to any such cause, the date of delivery will be extended by period equal to the delay plus a reasonable time to resume production, and the price will be adjusted to compensate ABB for such delay.
16. **Cancellation.** Any order may be cancelled by Purchaser only upon prior written notice and payment of termination charges, including but not limited to, all costs identified to the order incurred prior to the effective date of notice of termination and all expenses incurred by ABB attributable to the termination, plus a fixed sum of ten (10) percent of the final total price to compensate for disruption in scheduling, planned production and other indirect costs.
17. **Termination.** No termination by Purchaser for default shall be effective unless, within fifteen (15) days after receipt by ABB of Purchaser's written notice specifying such default, ABB shall have failed to initiate and pursue with due diligence correction of such specified default.
18. **Export Control.**
 - (a) Purchaser represents and warrants that the Equipment and Services provided hereunder and the "direct product" thereof are intended for civil use only and will not be used, directly or indirectly, for the production of chemical or biological weapons or of precursor chemicals for such weapons, or for any direct or indirect nuclear end use. Purchaser agrees not to disclose, use, export or re-export, directly or indirectly, any information provided by ABB or the "direct product" thereof as defined in the Export Control Regulations of the United States Department of Commerce, except in compliance with such Regulations.
 - (b) If applicable, ABB shall file for a U.S. export license, but only after appropriate documentation for the license application has been provided by Purchaser. Purchaser shall furnish such documentation within a reasonable time after order acceptance. Any delay in obtaining such license shall suspend performance of this Agreement by ABB. If an export license is not granted or, if once granted, is thereafter revoked or modified by the appropriate authorities, this Agreement may be canceled by ABB



without liability for damages of any kind resulting from such cancellation. At ABB's request, Purchaser shall provide to ABB a Letter of Assurance and End-User Statement in a form reasonably satisfactory to ABB.

19. **Assignment.** Any assignment of this Agreement or of any rights or obligations under the Agreement without prior written consent of ABB shall be void.
20. **Nuclear Insurance – Indemnity.** For applications in nuclear projects, the Purchaser and/or its end user customer shall have complete insurance protection against liability and property damage resulting from a nuclear incident to and shall indemnify ABB, its subcontractors, suppliers and vendors against all claims resulting from a nuclear incident.
21. **Resale.** If Purchaser resells any of the Equipment, the sale terms shall limit ABB's liability to the buyer to the same extent that ABB's liability to Purchaser is limited hereunder.
22. **Entire Agreement.** This Agreement constitutes the entire agreement between ABB and Purchaser. There are no agreements, understandings, restrictions, warranties, or representations between ABB and Purchaser other than those set forth herein or herein provided.